June 2021

The Hexagonal Mesh Like Virtual Reality Viewer

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ABSTRACT

This disclosure describes a method to construct a virtual reality viewing device that has a comparatively smaller form factor. The device's viewing parts contain an array of small focusing lenses. through these parts the viewer of this device could experience a hexagonal mesh like field of view experience.

BACKGROUND

Nowadays, virtual reality is used to provide a user with an immersive virtual experience. One major challenge in virtual reality head mounted devices is the creation of a comparatively smaller form factor device. Current virtual reality headsets tend to be big and bulky. This makes it both heavy and unappealing to many users.

KEYWORDS

Virtual reality

Video screen

Focusing lenses

DESCRIPTION

This disclosure describes a method to construct a virtual reality viewing device that has a comparatively smaller form factor. The viewing device contains the structure to which all the components are fitted, two forward facing video screens, two forward facing convex lens array surfaces, two facing toward sides video screens and two facing toward sides convex lens array surfaces.

The headset with all the components is given by the diagrams below.

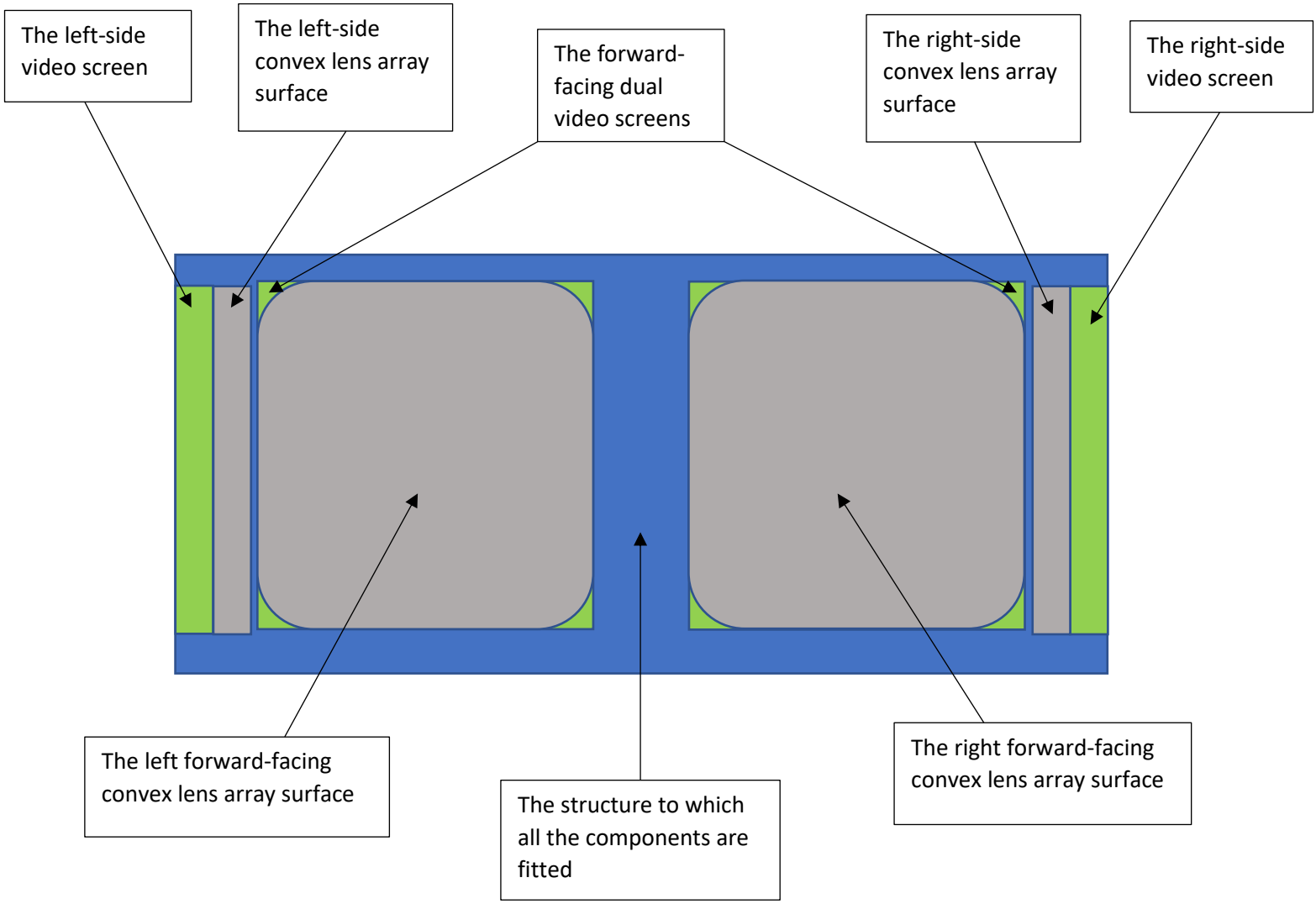


Diagram one: the rear view.

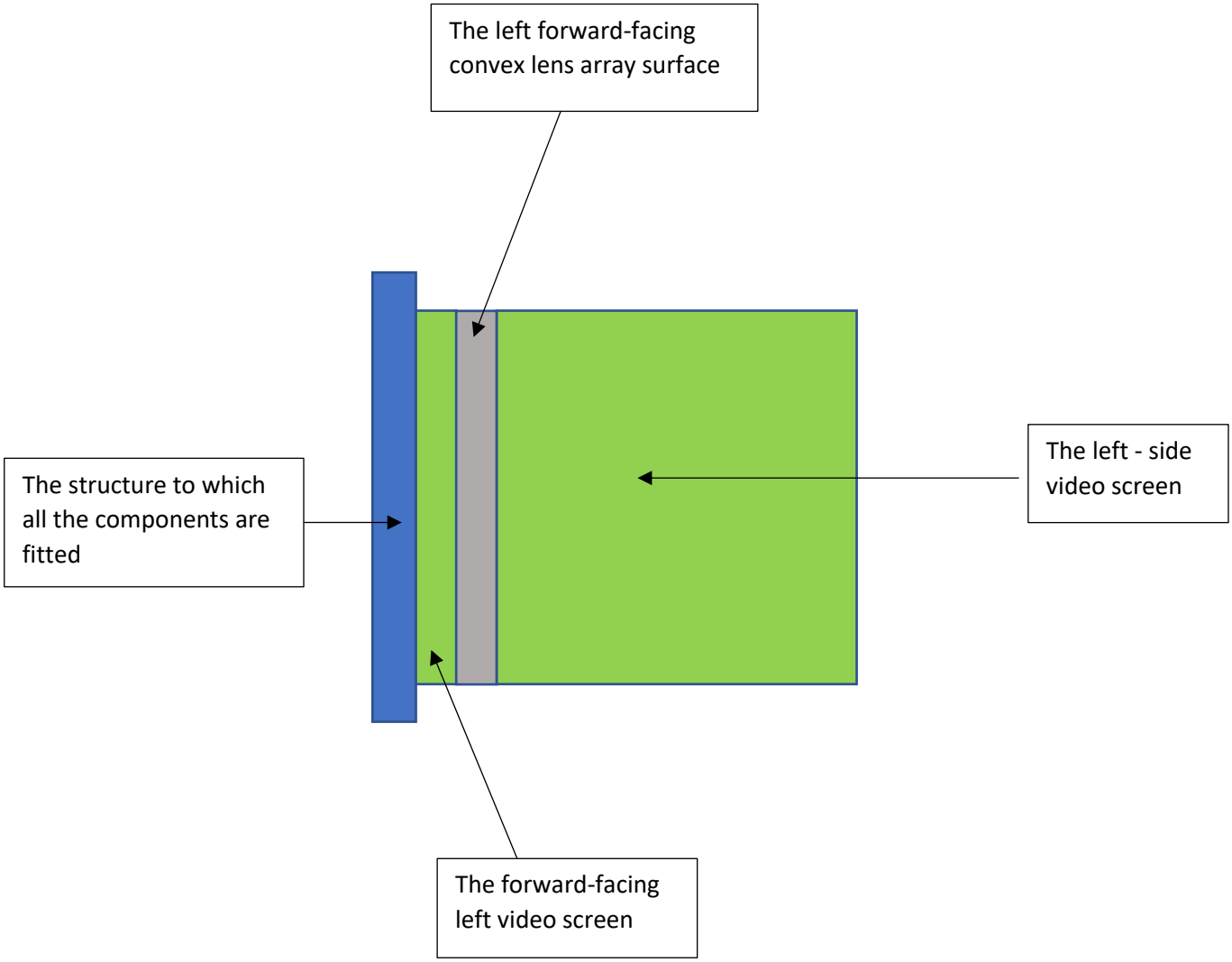


Diagram two: the left side view.

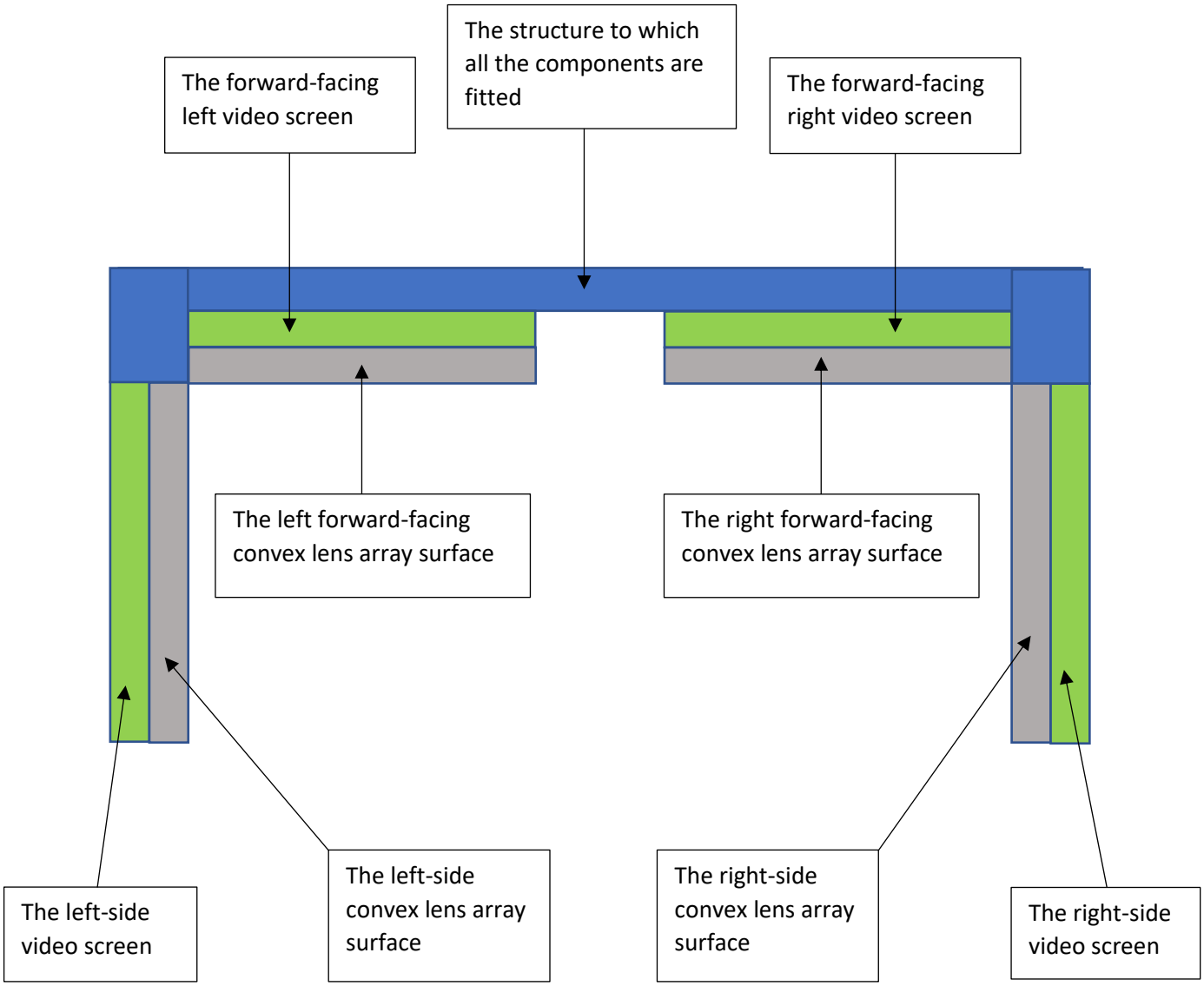
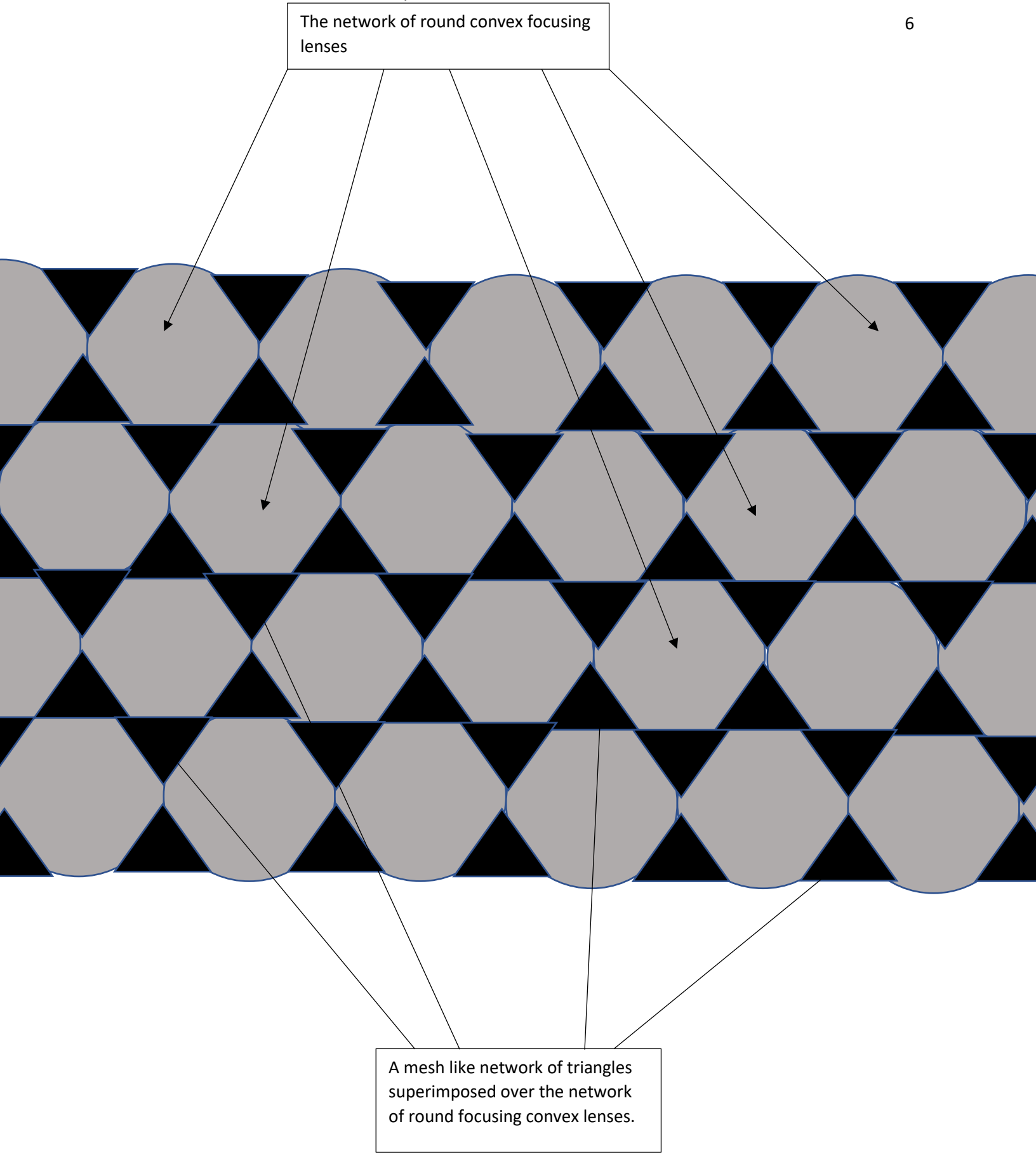


Diagram three: the top view.

As given by the diagrams the viewing device contains a structure to which all the components are fixed, two forward facing video screens with two focusing convex lens array surfaces which are also forward facing and two video screens from the sides with two focusing convex lens array surfaces which are also from the sides.

- All the four focusing convex lens array surfaces have the same configuration. They have a convex lens array arrangement superimposed by a network of triangles mesh. A part of this superimposed arrangement is given by the diagram below.


The network of round convex focusing lenses
A mesh like network of triangles superimposed over the network of round focusing convex lenses.

As given by the diagram above, the surface of the convex lens array consists of a network of round convex lenses superimposed by a network of triangular shaped arrangement of non-transparent material. The end result of this arrangement is a hexagonal shaped focusing convex lens parts network.

This viewing device with this configuration of hexagonal convex focusing lens network positioned over the four video screens will provide the user of this device with a hexagonal mesh like field of view. The video footages on the screens will be focused by the hexagonal shaped arrays of convex lenses. Thereby the user will be able to experience focused video footages that are seen through a hexagonal mesh like field of view.